

stressed by McVaugh. Walter Hough wrote at Palmer's death that the value of his collections rested "in the early period of their acquisition and the care with which the data and the method of procuring them were recorded." He "made the first exploration of an ancient pueblo ruin, in 1873, a mound at St. George, Utah, preserving every fragment of evidence that came under his trowel and carrying out the exploration with a skill and perfection of method that have not been surpassed in that field." This assiduous collector brought together "some of the most unique specimens ever obtained from the Apache," and, altogether, his ethnological material is accounted among the most valuable in the United States National Museum. In writing of such subjects as sand-fool (*Ammobroma sonora*), Palmer was careful to cite the Indian name, *biatatk*, and its procurement and use.

Any sketch of Palmer must be a pedestrian account. McVaugh's biography itself is brief, amounting to 122 pages of the book. The narrative is, in fact, an extended annotated itinerary through life rather than a portrait. It is perhaps impossible to uncover the portrait of the man Palmer. His friends, sponsors, competitors, cronies, Indians, and a very few ladies are identified in on-the-spot footnotes. Dinah Riches, his English bride who accompanied him on the transatlantic run of the *Amazon*, out of London docks April 16, 1856, drops from the Palmer story with the fall of the anchor in New York harbor. McVaugh justly remarks that this event ranks "among the most intriguing incidents of his life."

Following the biographical portion of the book is a 230-page gazetteer of collecting localities, giving the precise location in terms of seventy-five maps checked for their inclusion. This 'geographical index' will prove immensely useful for placing not only Palmer's localities but for others of his period. Some of us will shelve this book beside the atlases, directories, and nomenclators for ready reference. The photographic illustrations animate the book and there are two unusual maps. JOSEPH EWAN, Department of Botany, Tulane University, New Orleans.

NOTES AND NEWS

VARIABILITY IN *TRILLIUM OVATUM* PURSH. This *Trillium*, so readily recognized, is nevertheless subject to frequent striking variations. Normally the three leaves are approximately equally spaced, separated by angles of 120°. However, it is fairly common to find plants in which two of the leaves are directly opposed, i.e., making an angle of 180°, while the third leaf is inserted on one side, perpendicular to the common axis of the other two. This suggests that some ancestor may have had four leaves, and indeed, one plant (unfortunately sterile) was seen which *had* four leaves, of approximately the same size and equally spaced.

Occasionally plants are seen which are 2-merous, sometimes imperfectly so (one plant had one normal leaf and one leaf which was divided about one-fourth of its length from the apex), but sometimes they are completely and perfectly 2-merous. One plant which was perfectly 2-merous throughout was transplanted for further observation, and the next year the root sent up two stalks, both of which were normal and perfectly 3-merous! In another year this root again produced a 2-merous plant, although not so perfect as the first one had been.

At one station plants were observed to produce, year after year, flowers which had crumpled and imperfect petals in addition to and inside the three normal ones.

These tendencies toward variability in *Trillium ovatum* suggest an inherent genetic instability.—VESTA F. HESSE, Boulder Creek, California.